

days the Carlsbad salts are repeated. The thermal springs are of the greatest importance for gouty patients who have not suffered from articular lesions. For those who have suffered, two months should elapse before they make use of them. Carlsbad is valuable from its temperature and large amount of sodium chloride and sulphate; Vichy, from its sodium bicarbonate. The indications are very different. With uricæmia, intestinal catarrh, flatulent dyspepsia, and tendency to obesity, Carlsbad is to be preferred; for lithiasis, Vichy. Both are contraindicated in even indications of cardiac conditions, and in interstitial nephritis. Other waters, less active and better borne, as Royat or Ems, should be chosen. If there are tophi, we should prefer those which contain more chlorine, of which Wiesbaden is the type, source Kochbrunnen, which can be used for drinking and bathing. For articular gout no water is preferable to it. If this is believed to be too strong, we can resort to the waters of Baden-Baden, which are very warm, or to those of Hamburg, less active because they are cold. The gouty, with a tendency to cachexia, should avoid these waters. Then we can resort to those which may be called waters of *lavage*, Martigny-les-Bains, Contréxeville, Vittel, Evian, cold alkaline waters to which it is necessary to add the lime-sulphur water of Capvern; all these are effective only when taken in large amount—eight to twelve glasses per diem. Since these are cold, they are difficult of digestion and not always well borne. Such also is Ragatz, which contains almost no mineral substance, and of which the dose is four glasses. The water as a beverage is the principal agent in treatment, but the baths are useful in chronic nervous and rheumatic affections.—*Bulletin Général de Thérapeutique*, 1895, 48e liv., p. 553.

THE ATROPINE-GROUP.

MR. GORDON SHARP notes that no group of bodies is more confusing to the student than the pupil-dilators, hyoscyamine, hyoscine, daturine, duboisine, scopolamine, and atropine. Chemically hyoscyamine appears to be identical with atropine, and pharmacologically he does not know if we can distinguish between them. Duboisine was found to be (about 1878) an impure atropine. Daturine is believed to be identical with atropine by Schmidt and Ladenburg. Hyoscine (Ladenburg's) in 1893 was believed to be identical with scopolamine by Schmidt and Hesse. Scopolamine, according to Hesse, is made up of two bases: one identical with hyoscine and the other isomeric with it, which he proposes to name atroscine. Other and conflicting views are summarized. As the results of his own observations he would say that daturine and duboisine may be called impure atropine. The varying effects obtained by different observers in the case of hyoscine and scopolamine may be accounted for on the supposition that neither is a definite base. Hyoscyamine may be supposed to be identical with atropine. Atropine is the alkaloid of which one knows most, and it may be called the fundamental or representative base; our knowledge permits us to say, at least, that in hyoscine and scopolamine we have a certain proportion of atropine along with a varying proportion of a conversion- or decomposition-product of atropine, and which we may call *a-tropeine*. Instead, then, of multiplying names, we should call atropine what is usually atropine, and get

hyoscine and scopolamine free from any admixture, and have the resulting products by names corresponding to hematropine [?]. Personally, his experience has led him to think that hyoscine, scopolamine, daturine, and duboisine differ little from atropine, although other observers think differently.—*British Medical Journal*, 1895, No. 1825, p. 1547.

THE EXTERNAL APPLICATION OF ANTIPYRETICS.

DR. H. GILLET sums up a consideration of this subject by stating that some physiologists still refuse to believe that the skin can absorb. Practically, applications of guaiacol may be useful in replacing the ingestion or subcutaneous injection of the drug or for completing its effect. Various authors insist upon the necessity of enveloping the surface of application with impermeable dressings to facilitate absorption. The action of the applications varies according to the mixtures employed. Ferrand has used equal parts of guaiacol and glycerin to relieve the intercostal neuralgia of the tuberculous; Championnière, the same for sciatica. This mixture does not irritate the skin; it even covers it with an impermeable coating and the pain disappears within a few hours, and, reappearing, is again relieved. But this mixture has no effect upon the temperature, because the guaiacol is not absorbed. In dose of twenty drops of the drug the temperature is reduced; this reduction persists three hours, it then re-ascends and may even go higher than at first. Further, all patients do not react to guaiacol, and there seems to be obtained a habituation to its use. The results which are reported certainly give good reason for the employment of this new method for reducing temperature.—*Journal des Praticiens*, 1895, 2e semestre, No. 26, p. 406.

LORETIN.

DR. HERBERT SNOW has studied this organic iodine compound, of which the proper chemical title is meta-iodo-ortho-oxyquinoline-ana-sulphonic acid, $C_9H_4IN.OH.SO_3H$. It is a bright-yellow, odorless, crystalline powder, slightly soluble in water and alcohol. It is used as a dusting-powder, either alone or mixed with calcined magnesia, starch, or French chalk; as collodion (2 to 10 per cent.); in pencils of cocoa-butter (5 to 10 per cent.); in ointment (5 to 10 per cent.); with vaseline or lanolin; and as an impregnated gauze. If dusted on the skin or over a granulated wound, it does not give rise to the slightest irritation nor to any unpleasant sensation. It immediately destroys the bad odor of the most fetid cancerous sore, controlling this in a manner in which no other agent which has yet been tried will do. It has been employed in about sixty cases, mostly operations upon the breast and axilla, and has proved to be an ideal antiseptic and deodorant, with not a single drawback.—*British Medical Journal*, 1895, No. 1825, p. 1549.

PREVENTIVE INOCULATION AGAINST CHOLERA IN INDIA.

DR. W. M. HAFKINE proposes the terms variolization (term employed as in smallpox) for the process of using a virus which is the infectious material taken from a patient affected with the disease, and vaccination for the em-